

Questions which might be asked of military technical experts in the field of research and development of high-energy fuels and propellants:

I. Of the various high-energy fuel and propellant research programs currently being carried on by or for US military services, which appear to be the most promising?

II. With respect to each of these more promising programs:

a. What component materials are required, and in what quantities:

1. In the development stages?

2. In full operation under peacetime conditions?

3. In wartime under full mobilization?

b. What equipment is required to produce the fuel or propellant? Is this equipment of standard design or specially designed and manufactured for this particular purpose? How can it be identified?

c. What materials are required and in what quantities for:

1. Manufacture of the fuel or propellant, other than as a component of the finished product?

2. Manufacture of the equipment used in making the fuel or propellant?

d. In what types of equipment will these fuels and propellants be used? Will it have to be designed specially for their use? If so, what time-consuming, technical, or operational problems result?

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-2-

III. Of known potential types of high-energy fuels or propellants which do not appear to be the most promising at this time, which: 1/

- a. Have been abandoned?
- b. Are still under active consideration for possible development and use at a later time?

IV. In the case of each 1/ of the currently less promising high-energy fuel or propellant possibilities, is the reason for this evaluation of them:

- a. Technical difficulties encountered in the development or manufacture of:
 1. The fuel or propellant, itself?
 2. The equipment required for the production of the fuel or propellant?
 3. The equipment required to use the fuel or propellant effectively?

V. How do the various potential high-energy fuels or propellants compare with respect to probable

- a. Performance?
- b. *Storability*
- c. Transportability?
- d. Cost of:
 1. Development?
 2. Production when in full-scale use?

1/ In view of the great number of potential high-energy fuels and propellants, it probably would not be practical to answer these questions in complete detail. However, perhaps they can be answered for groups of possibilities or for the most significant individual items falling within this description.